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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,920	10/31/2001	Norbert Ammann	9303-3	8947

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EXAMINER

LEE, GRANVILL D

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/001,920

Applicant(s)

AMMANN ET AL.

Examiner

Granvill D Lee, Jr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the conductive structures on both sides of the temporary must be shown or the feature(s) canceled from the claim(s), i.e. claims 9 and 14. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-11, 13-20 and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki et al. (US Pat. 6,118,502).

In view of claim 1, Yamazaki et al. makes a device comprising an electrical circuit (components) (title) carried by a carrier element (substrate), an electrically conductive (driver circuit) structure being provided on a surface of the carrier element (abstr.), wherein one or more further components of the electrical circuit are arranged on a side of the electrically conductive structure facing the carrier element (Fig. 3).

In view of claim 2, Yamazaki et al. continues making a carrier element using a plastic materials (abstr.).

In view of claims 4-6 & 15-17, Yamazaki et al. uses a multi-level conductive film base to form the device.

In view of claims 7, 10, 24 and 26, Yamazaki et al. constructs both passive and active electronic components on the device (abstr.) or substrates.

In view of claim 8, Yamazaki et al. forms conducting lines or strips from where electrical connections are made (Col. 5 lines 33-38).

In view of claims 9 and 19-20, Yamazaki et al. uses an adhesive (#3 Fig. 1 and #51 Fig. 5) to hold the components (Col. 4 lines 50-57) to the substrate.

In view of claims 11, 13 and 18, Yamazaki et al. makes components of the electric circuit on a substrate arrangement that face each other and results in a display device (Col. 5 lines 40-47). ✓

In view of claim 14, Yamazaki et al. makes a device comprising an electrical circuit (components) (title) carried by a carrier element (substrate), an electrically conductive (driver circuit) structure being provided on a surface of

the carrier element (abstr.), as a component of the electrical circuit , the method comprising applying the electrically conductive structure to a temporary substrate (title) mounting on opposing substrates (Fig. 5), where the temporary substrates are removed (abstr.).

In view of claim 20, Yamazaki et al. shows a resin (Fig. 1 #3) encompassing other components in the display device.

In view of claim 23, Yamazaki et al. uses an adhesive (#3 Fig. 1 and #51 Fig. 5) to hold the components (Col. 4 lines 50-57) to the substrate.

In view of claim 25, Yamazaki et al. uses a connector portion to electrically connect to other parts of the device (Col. 4 lines 50-54).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. in view of Fukutomi et al. (US. Pat. 5,426,850).

In view of these claims, Yamazaki et al. makes a device comprising an electrical circuit (components) (title) carried by a carrier element (substrate), an

electrically conductive (driver circuit) structure being provided on a surface of the carrier element (abstr.), wherein one or more further components of the electrical circuit are arranged on a side of the electrically conductive structure facing the carrier element. However, Yamazaki et al. fails to embed the portions of the device into the substrate.

Fukutomi et al. uses a wiring process where at least a portion of the device is embedded into the substrate (Fig. 4 #44). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Yamazaki et al with those of Fukutomi et al. to utilize a technology from which printed wiring boards can easily be connected to and still employ a temporary substrate (Col. 10 lines 37-55).

Claims 21-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. in view of Nakamura (US. Pat. 5,202,273).

In view of these claims, Yamazaki et al. makes a device comprising an electrical circuit (components) (title) carried by a carrier element (substrate), an electrically conductive (driver circuit) structure being provided on a surface of the carrier element (abstr.), wherein one or more further components of the electrical circuit are arranged on a side of the electrically conductive structure facing the carrier element. However, Yamazaki et al. fails to etch away the temporary substrate. Nakamura uses a device processing technique that etches away the temporary substrate down to the etch stop (#1 & Col. 12 lines

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42-49). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Yamazaki et al with those of Nakamura to remove the temporary substrate structure to make room to further develop the device (Col. 12 lines 42-60).

Contact Information

Any inquiry concerning this communication or earlier communications for the examiner should be directed to Granvill Lee whose telephone number is (703) 306-5865. The examiner can be normally reached on Monday thru Thursday from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are not successful, the examiner's supervisor, Matthew Smith can be reached on (703) 308-1323. The fax phone number for this group is (703) 308-7722.

Any inquiry of a general nature relating to status or otherwise should be directed to the receptionist whose telephone number is 703-308-1782.

Examiner
Granvill Lee
Art Unit 2825

GI
4/17/03


MATTHEW SMITH
SUPERVISORY PATENT EXAMINER
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